Founder's Characteristics, Institutions, and Entrepreneurial Firm's Time to IPO in China

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Abstract

The initial public offering (IPO) is the most important stage in the evolution of an entrepreneurial firm. While numerous studies have investigated the determinants of the going public decision and the post-IPO performance, few studies have studied factors that influence the transition speed from the entrepreneurial firm stage to the professional firm stage. Leveraging a unique sample of 428 firms listed on Growth Enterprise Market in Shenzhen Stock exchange between 2009 and 2016, we assert that the entrepreneurial founder of the IPO firm is the key determinant of the transition speed. Based on the Upper Echelon theory and institution-based view, we suggest that a founder's personal characteristics and external institutions drive the time to IPO. Our findings reveal the strategic importance of the founder and contribute to an improved understanding of why firms vary in the "going public speed" in an important emerging economy, China.

Keywords: Founder's Characteristics, Market-supporting Institutions, Time to IPO, Emerging Economy, China.

1 Introduction

The initial public offering (IPO) is the most important stage in the evolution of an entrepreneurial firm (Filatotchev and Bishop, 2002; Filatotchev et al., 2006). An entrepreneurial firm is often initiated by a less identified opportunity and supported by private funding. After initial success, the firm attempts to raise additional capital outside of the organisation through the stock market. While numerous studies have investigated the determinants of the going public decision and the post-IPO performance (Brav et al., 2000; Jain and Kini, 1999; Latham and Braun, 2010; Piotroski and Zhang, 2014), limited literature has studied factors that influence the transition speed from entrepreneurial firm stage to professional firm stage. Time to IPO, defined as the time elapsed between an entrepreneurial firm's incorporation and its IPO (Shepherd and Zacharkis, 2001; Yang et al., 2011), is very meaningful for entrepreneurial firms and investors as it can be considered as a measure of firm performance at the early stage of a firm's life cycle (Chang, 2004).

Existing studies have examined time to IPO by addressing the effects of top executives and external players (e.g. the involvement of venture capital) in developed economies. However, two issues have not been fully studied. First, though we admit the fact that top executive (i.e. chief executive officer) plays a leading role after the stock flotation, the top executive may only be appointed after the IPO, in which the person played no role in determining the pace of going public. To study the time to IPO, we argue that we need to trace back to the starting point of the firm and explore the effects of the firm's creator. Second, existing research was conducted overwhelmingly in developed economies where the formal institutions (i.e. legal framework and market-supporting system) are well established. It is therefore interesting to explore the factors which can drive the firm's IPO speed in the

contextual environment of emerging economies. In emerging economies, institutions are underdeveloped and change continually (Peng, 2003). Many emerging economies are endeavouring to move towards marketisation, but the firm's activities are still constrained by government intervention and regulations. While an entrepreneurial firm's IPO are shaped by well-established market-supporting institutions in developed economies, the interplay of the with complex institutional contexts in emerging economies remains unclear (Alon and Rottig, 2013).

This paper intends to address these research gaps and endeavours to answer the question: *What determines an entrepreneurial firm's time to IPO in an emerging economy*? We adopted upper echelon theory and institution-based view to explain the effects of the founder's characteristics and external institutions on this important strategic decision for entrepreneurial firms in an important emerging economy, China. Through answering the question, two contributions thus emerge. First, we contribute to the IPO speed literature by extending the focus to the fountainhead of an entrepreneurial firm. Specifically, through the "microfoundation" lens (Barney and Felin, 2013; Contractor et al. 2019; Eisenhardt et al., 2010; Felin et al., 2015), we study the effect of the characteristics of the founder on the time to IPO. Though IPO speed literature has explored the effects of managerial characteristics (Yang et al., 2011) and venture capital involvement (Shepherd and Zacharkis, 2001) on the time to IPO, an entrepreneurial firm's founder has been overlooked in previous studies. Being the creator of a firm, the founder is the initial architect of the organisation's structure and strategy (Fattoum-Guedri et al., 2018; Franco and Prata, 2019; Jayaraman et al., 2000; Nelson, 2003). A large number of empirical studies have confirmed founder's profound influence on a firm's strategy and performance in the early stage of firm's life cycle (Ahmed and Brennan, 2019; Block, 2012; Dencker and Gruber, 2015; Fern

et al., 2012; Franco and Prata, 2019; He, 2008). In this role, the founder exercises stronger strategic leadership in every aspect of the operation in comparison to other hired managers and venture capitals (Bigley and Wiersema, 2002; He, 2008). We examine the founder's observable characteristics as key microfoundation of the time to IPO. This paper develops our knowledge about the way the founder's characteristics drive the firm's IPO process.

Second, this paper articulates the importance of founder for entrepreneurial firms under a contextual environment where formal institutions are underdeveloped. Institutions have been proved to exhibit 'macro' pressures towards firms' strategic choices and performance (Peng and Heath, 1996; Peng et al., 2008). Previous studies have explored the interactions between institutions and firms and exerted informal institutions (e.g. social norms and culture) play a larger role when formal institutions are weak or even absent. This paper highlights the founder as the microfoundation and explaining the interplay between the founder and macro-institutions in influencing firm's time to IPO.

2 Theoretical Background and Hypothesis

Time to IPO is an important topic because it not only reflects a firm's performance prior IPO but also determines a firm's ability to raise funding from the market in post IPO period (Chang, 2004; Shepherd and Zacharakis, 2001; Yang et al., 2011). Previous studies examine time to IPO from two perspectives. One research stream addresses external factors. For instance, Chang (2004) finds that venture capital involvement and entrepreneurial firm's network would speed up the IPO process. Shepherd and Zacharakis (2001) suggest that market factors, such as

geographic location and favourability of the IPO market accelerate the IPO process of venture capital-backed firms.

Another stream of study adopts the upper echelon theory and identifies the importance of the firm's top manager in the IPO process. Upper echelon theory suggests that the traits and characteristics of the top management team can shape organisational actions (Hambrick and Mason, 1984). According to this view, top executives' characteristics influence the cognition and perception of the environment, which in turn lead to regularity and a predictable structure in organisations. Taking this theoretical aspect, Yang et al. (2011) examine IPO firm's chief executive officer (CEO) and find that the CEO's prior experience, network, and age significantly relate to the IPO speed in the U.S. While important contributions, the abovementioned studies overlook probably the most important player for the entrepreneurial IPO firm, the founder.

Over the last decade, the "microfoundations" literature (Felin and Foss, 2005; Gavetti, 2005) has asserted that the micro-level (represented by the level of individuals and their interactions) is the nested antecedent to collective phenomena at the organisational level. In other words, a firm's capabilities, performance, and strategies are essentially derived from the individuals' endowment and characteristics (Felin et al., 2015). The microfoundations approach seeks to understand the organisation's outcome by specifying the input of individuals and asserts that organisation and strategy studies should engage in lower, micro levels - individuals and their interaction (Barney and Felin, 2013).

Being the creator of the firm, the founder is the most important individual who blueprints the initial structure, formulate strategy and enlighten culture of the organisation (Nelson, 2003). Through fulfilling these roles, a founder is likely to act

as the strategic leader who can guide the strategic direction and decision-making (Jayaraman et al., 2000). At the start-up stage, the founder usually serves as the chief executive. Holding a creative idea with the firm belief, a founder thus is the microfoundation of the entrepreneurial firm he/she created and is likely to have individual impacts on organisational structure and strategic direction for firms' growth and development (Rubenson and Gupta, 1996).

Recent literature has highlight the role of the founder in many aspects. For example, recent studies have examined the effects of the founder on entrepreneurial orientation (Deb and Wiklund, 2017; McGee and Peterson, 2019; Vaznyte and Andries, 2019) and proposed the positive role of the entrepreneurial founder in improving an organization's strategic orientation to be more risk-embracing, innovative, and proactive in its decision-making process. Other entrepreneurship literature has explored the influence of the founder on strategy and performance (e.g. Fattoum-Guedri et al., 2018; Hendricks et al., 2019; Jain and Tabak, 2008; Wasserman, 2017). However, a limited number of studies had examined the effects of the founder as 'microfoundation' for the entrepreneurial firm's time to IPO. Even fewer studies explored the macro-level factors (e.g. institutions) on time to IPO. In the following sections, we discuss the relationship between the founder's characteristics and institutions and the time to IPO (see Figure 1).

[Insert Figure 1 here]

2.1 Founder-CEO Status

IPO is an important evolution when an entrepreneurial firm turns into a public company. Compared with unlisted entrepreneurial firms, IPO firms face more critical external pressure from the stock market and deal with much wider stakeholders. Thus,

Filatotchev and Wright (2005) suggest that an IPO firm should adjust its management structure and governance system in order to accommodate the changed ownership structure and different stakeholders' interests in the post IPO period. Therefore, a firm's founder should cede control to professional managers in the post IPO stage as the firm's growth requires extra expertise and resources of its founder can possibly provide (Chahine et al., 2011; Zahra and Filatotchev, 2004).

Founder-CEO refers to the situation where the founder serves as the chief executive officer. Chief executive position is likely to enhance the founder's power and hierarchical authority. Given the important role that a firm's founders play in its initial conceptualisation and start-up, the dual leadership would consolidate the managerial power over the firm. The founder is often more entrenched and less likely to leave than are the top managers in established firms. A large number of studies have found that the founder would hold a personal stake in the firm they created and therefore have strong desire to maintain control over the company (Boeker and Karichalil, 2002; Daily and Dalton, 1992; Jain and Tabak, 2008; Shekshnia, 2008; Wasserman, 2003). Therefore, we expect the founder-CEO status would slow down a firm's IPO speed.

H1. The presence of a founder-CEO will positively influence a firm's time to IPO.

2.2 Founder's Age

An individual's age is expected to influence many aspects of strategic choices (Hambrick and Mason, 1984). Older executives would inevitably have more experience and connections in the industry (Peni, 2014) though they tend to be more conservative compared to youth counterparts (Bertrand and Schoar, 2003). Age appears to be an important variable that may affect the attitudes toward risk. Empirical studies have found that older top managers tend to follow low-risk growth

strategies whereas young managers are more willing to take a risky decision (Carpenter and Fredrickson, 2006; Jain and Tabak, 2008; Yang et al., 2011). Older founders may have reached the late stage of the career where financial and career securities become the top priority. They would therefore tend to avoid uncertainty and risky decisions, such as IPO, which could involve major changes in the strategic direction of a firm.

Furthermore, a founder would normally be replaced by a professional manager to manage the firm after the IPO (Daily and Dalton, 1992; Filatotchev and Wright, 2005) because required skill of managing a listed firm often exceed the founder's ability and expertise (Chahine et al., 2011; Hendricks et al., 2019; Zahra and Filatotchev, 2004). The founder often considers the firm as his/her lifetime achievement. Older founders would have a greater psychological commitment to the organisation he created. Therefore, older founders would be reluctant to pursue IPO as the success of IPO may accelerate the founder being replaced by a professional manager. The conservative, risk-averse attribute and psychological commitment associated with an older founder would slow down the IPO speed. Hence we propose:
H2. The founder's age will positively influence a firm's time to IPO.

2.3 Founder's Education.

Education indicates an individual's knowledge and skills and reflects an individual's information-processing capability. A higher level of education creates broader knowledge and capability, which in turn helps to identify business opportunities, solve problems, and gain successes (Dickson et al., 2008). Education enables executives to cope with increasingly larger and complex firms and achieve successful performance outcomes (King et al., 2016). Sapienza and Grimm (1997) suggest that higher levels of founder's education can lead to better firm performance.

On the strategic decision of taking the company public, Yang et al. (2011) suggest the higher an entrepreneur's level of education, the more determined he/she would be. Such a desire can be attributed to the aim of acquiring additional resources from the stock market for further growth. Following this logic line, we argue that educational level facilitates the opportunities' identification and also the transition from an entrepreneurial firm to a professional public firm. So, we hypothesise that:

H3. The founder's education level will negatively influence a firm's time to IPO.

2.4 Founder's Political Connection

Social capital is the ability to obtain benefits through an actor's network of social relationships (Adler and Kwon, 2002). Entrepreneurship studies view social capital as a unique resource to gain competitive advantage and contribute to performance (Bamford et al., 2006; Florin et al., 2003; Li et al., 2008; Li et al., 2012). The obvious benefit associated with social capital is resource and information accession. Social capital facilitates access to broader sources of information and improves information's quality, relevance, and timeliness (Li et al., 2008). Political connections are crucial social capitals in China.

Political connections are very important for entrepreneurial founders. In emerging economies, such as China, the undeveloped market creates an uncertain environment and ineffective market (Peng et al., 2008). More importantly, the Chinese government controls significant portions of strategic resources and has considerable power to influence allocation channels (Li et al., 2012). Strong social network with the government helps the firm to gain access to valuable resources and information about industrial development and government policies. The main benefit of conducting IPO is to gain access to additional financial resources to fund the firm's future growth. The strong political connection, however, can substitute to the IPO as a means to offer

resource accession. We, therefore, expect the founders with strong political connections would less likely to speed up the IPO process. Therefore,

H4. The founder's political connection will positively influence a firm's time to IPO.

2.5 Founder's Experience.

The founder's influence on time to IPO may vary based on his/her past experiences. Successful entrepreneurs are able to perceive an opportunity based on their knowledge. The knowledge can be gained either through formal education or through previous working experience. Experiences also shape an individual's cognition and perceptions towards the environment and help the firm to seek opportunities under uncertainty (Hambrick and Mason, 1984).

Furthermore, a founder's experiences are valuable assets and can help with resource acquisition. Previous experiences provide channels of communication and facilitate information flow among the firms and external environment. The founder can learn about business practices through their own social network, which is built through the working experience. Adler and Kwon (2002) comment that information acquired from the social network may be particularly influential because it often comes from a trusted source. This information is typically more timely than that derived from secondary sources. Extensive work demonstrates experience provides an important source of information about business practices and industrial development and hence plays a critical role in future strategy formulation and subsequent firm performance (Carpenter et al., 2001). An experienced founder can use their insight and experience to facilitate the IPO process (Yang et al., 2011).

In addition, many studies have shown that top executives' international experience is closely linked to the firm's performance (Carpenter et al., 2001; Le and Kroll, 2017). International experience helps an individual develop knowledge and

global networks as well as skill to cope with complex information and dynamic environment. These skills and competencies can be a source of competitive advantage and superior firm performance (Daily et al., 2000). Therefore, rich experience enhances a founder's ability to control these critical contingencies after the IPO. We suggest that:

H5a. The founder's experience will negatively influence a firm's time to IPO.

H5b. The founder's foreign experience will negatively influence a firm's time to IPO.

2.6 Institutions and Time to IPO

Institutions, which are defined as "the rules of the game" (North, 1990), have been proved to exhibit formal and informal pressures for firms, and directly affect firms' strategic choices and performance. The institution-based view focuses on the interactions between institutions and firms, and exerts firm's strategic choices and performances are the outcomes of such interactions (Peng and Heath, 1996). In other words, institutions determine directly how firms formulate and implement strategy because both formal and informal institutions have capacities to control and constrain managerial behaviour. For example, Peng and Heath (1996) argue that the internal growth of firms in transition economies is limited by institutional constraints. Thus, it is important to study institutions in emerging economies (Jimenez et al., 2017; Teng et al., 2018). In particular, formal institutions (e.g. political transparency, economic liberalisation, regulatory regime) are different from developed economies and experiencing huge changes during the transition period.

In this study, we examine the effects of market-supporting institutions on the time to IPO. Market-supporting institutions in this study refer to sub-national institutions that regulate market transaction such as regulations and marketisation, and support the efficiency of market transactions and resources allocation. It is proverbial that market-

supporting institutions play essential roles in both developed and emerging economies to influence firms' strategy choices and activities. Meyer et al. (2009), for example, suggest that firm's strategy is influenced by firms' resource endowment and market-support institutions.

Our concept of market-supporting institutions focuses on formal institutions that support the efficiency of market transactions and resources allocation. Strong market-supporting institutions create a more liberalised market where the firms can secure resources through market transitions. Lu et al. (2009) suggest that Chinese firms located in regions with higher levels of marketisation have better access to key resources. Park et al. (2006) argue that market liberalisation facilitates the flow of resources and enhances firm profitability and productivity in China.

We argue that in a situation where market-supporting institutions are strong, it may take longer for entrepreneurial firms to conduct IPO. The IPO process involves uncertainty with respect to market competition and business opportunities and is very costly. Taking a firm public requires a large amount of time, effort and resources. A typical IPO process may take from 9 to 18 months and cost an average of approximately 7% to 14% of the gross proceeds (Latham and Braun, 2010). When entrepreneurial firms are operating in an environment with strong market-supporting institutions, they can easily gain access to resources and know-how via market transaction. Entrepreneurial firms, therefore, are less motivated to float as IPO might cause unnecessary costs and risks. Thus, we propose that:

H6. Market-supporting institutions have a positive influence on the time to IPO.

3 Methodology

3.1 Sample and Data Source

Following several previous studies (e.g. Deeds et al., 2004; Yang et al., 2011), our data are primarily obtained from the IPO prospectus of each firm. As we interest in shedding lights on the relationship between founder's characteristics and IPO speed in entrepreneurial firms in China, the only one way to obtain the public data on entrepreneurial firms is through using the IPO prospectus from Shenzhen Growth Enterprise Market (GEM). In this study, therefore, the sample is selected from 511 Chinese firms listed on Shenzhen GEM and underwent IPO during the period of January 2009 to April 2016[1]. Majority of the firms listed on GEM are small and medium-sized enterprises (SMEs) which highly invested in R&D and having a great incentive on innovation. We included as many firms as possible during the process of data collection in May 2016. Therefore, we ended up with a full sample consisted of 511 firms. According to the 'Decision of the State Council on the Establishment of GEM', firms listed on Shenzhen GEM must have outstanding main business, unique technology and great product-market potential but there is no restriction of the ownership status. Therefore, the main difference in firms listed on Shenzhen GEM is that a few of them do not belong to entrepreneurial firms.

As we focus on entrepreneurial firms by distinguishing firms with the founder(s) from those which do not have founder(s). The processes of identifying the founder are that: (1) searching the keywords "founder" or "establish" in the IPO prospectus; (2) finding information about firm's history and (previous) ownership in the section "Introduction of the issuer" to check if the firm was founded by governments or other governmental organisations; (3) searching on search engines (Google, Baidu) to confirm the funder status. This process left us with 428 of 511 firms identified founder(s). In some cases, the founders could not be identified as the founders have retired, resigned, or died.

3.2 Variables

The dependent variable is "Time to IPO", measured as the number of years from the firm's establishment to its IPO date (Fischer and Pollock, 2004; Yang et al., 2011).

The independent variables are the founder's characteristics including founder-CEO status, age, education, political connection, network experience, and foreign experience.

Founder-CEO status. For the majority of the firms in our sample, the founder is the CEO of the firm at the time of IPO. In some firms, the founder however serves as the executive director, not the CEO. In theory, the founder-CEO status would have more control power over the firm (Fischer and Pollock, 2004). We code the variable as 1 if the founder is the CEO at the time of IPO, and 0 otherwise.

Founder age. The age of the founder is related to a firm's performance and strategies (Hambrick and Mason, 1984; Weinzimmer, 1997). We expect that the founder's age will impact on IPO speed. We calculate the age by using the born date of the founder reported in the IPO prospectuses.

Education. The education background of the founder has been confirmed relating to the firm's performance and strategies (Yang et al., 2011). We create an ordinal variable with a range from 0 to 4 to measure the highest degree owned by founder: 0, graduated from high school or below; 1, graduated from college institute (not a university and earned a three-year college degree); 2, graduate from university and earned an undergraduate degree (e.g. BA or BSc); 3, earned a master degree or equivalent (e.g. MA, MSc, MBA, or EMBA); and 4, earned a PhD degree.

Political connection. The importance of firm's political connections in emerging counties has been investigated in many studies (e.g. Li et al., 2008; Li et al.,

2012). We treat this variable as a dummy variable and code as 1 if founder had political connection - was the member of the National People's Congress or the member of Chinese People's Political Consultative Conference, or worked in the local or central government department or military department at or before the time of IPO, and 0 otherwise.

Founder's experience. The experience of the founder is linked to the firm's strategies (Hambrick and Mason, 1984). We count the number of formal working experience that founder already had before the time of IPO. This variable also can be defined as the capability of the founder network. We also include the founder's international experience in this study. The foreign experience of founder studying and working overseas can increase the founder's human capital (Dietz and Bozeman, 2005) thus can affect firm performance and the decision making of IPO. We code the variable as 1 if the founder has study or work experience abroad, and 0 otherwise.

Market-supporting institutions. Compared to the majority of early studies, we emphasise that importance the formal institutions for measuring the external environments. Sub-national provincial-level data of market-supporting institution are used in the estimations. The data are drawn from Business Environment Index for China's Provinces developed by Wang et al. (2013) who made four biennial reports for tracking the external factors (business environment) of the firms in China since 2006. They use questionnaires to collect the data from more than 4,000 firms around the country (29 provinces, excluding Tibet and Qinghai province, due to the lack of sample). The questions in their questionnaire cover political, legal, social factors. For this study, the proxies for market-supporting factor (i.e. level of marketisation, government intervention, and government size) are used and the annual data are obtained by applying the linear interpolation. A higher level of the index of market-

supporting institutions indicates less government intervention and more resource allocation through market-supporting institutions.

In terms of control variables, we mainly focus on firm-level factors including, venture capital (VC) involvement, R&D ratio and firm size. Venture capital is supposed to speed up IPO speed to cash its investment in developed economies (Yang et al., 2011; Zimmerman and Zeitz, 2002). Furthermore, Shepherd and Zacharakis (2001) find out that venture capital with different statuses can have dissimilar effects on the speed to IPO. Although we do not have sufficient information to recognise which firm may have support from top reputation VC owners, the percentage of VC/equity, obtained from the IPO prospectuses, is controlled in our empirical models. We also consider the effect of R&D input of firms, defined as a ratio of R&D expenditure to sales. Jain and Kini (2008) point out that the increase of R&D input in IPO firms can enhance the value of the firms along with higher growth. The ratio is calculated by using the related figures in the financial statements of the IPO prospectuses. Also, we include firm size as a control variable using nature logarithm of total assets. In addition, we also control for the industry-specific and geographic factors by including two sets of dummy variables.

We conclude the summary statistics and correlation between all the variables in Table 1. There is no seriously multi-collinear problem between each independent variable.

[Insert Table 1 here]

3.3 Model Specification

We estimate the effect of founder's characteristics on IPO speed while controlling for the effect of institutional quality using pooled ordered probit estimation[2]:

$$IPO = \beta_1 Founder + \beta_2 institution + \beta_3 Z + \beta_4 Dummies + \beta_0 + \varepsilon \quad (1)$$

where IPO represents Time to IPO; $Founder$ captures the effect of founder's characteristics; $institution$ stand for the quality of market-supporting institutions at the provincial level; Z refers to the set of control variables; and $Dummies$ represent location and industry fixed effects.

4 Results

We present our empirical results in Tables 2. Our empirical strategy for investigating the hypotheses discussed above relies on presenting the results of baseline model first with relevant proxies for firm-level factors and the effect of institution added further and finally assessing the influence of founder's characteristics.

[Insert Table 2 here]

In column 1, we include three proxies for firm-level factors. Venture capital does not have a significant impact while both R&D ratio and firm size have a positive and significant effect on time to IPO, suggesting that firms with greater investment in R&D and larger firm size tend to take a longer period of time for the IPO.

In column 2, using the institutional index, the effects of market-supporting institutions are controlled. A greater value of market-supporting institutions indicates less government intervention and a higher level of marketisation. The result shows the market-supporting institutions have insignificant effects on the time to IPO. R&D

ratio still exerts a positive and significant effect on IPO speed while other firm-level factors have insignificant effects.

In column 3, we omit all the control variable and introduce the effect of founder's characteristics with six measures namely, founder-CEO, age, education, political connection, network experience and foreign experience. The results show that both age and political connection have positive and significant effects on IPO speed while network experience and foreign experience have negative and significant effects. The effects of founder-CEO status and education on time to IPO are insignificant. These indicate that firms tend to spend more time before IPO if the founder is older or founder has political connection with government however firms are willing to fasten the speed to IPO if the founder has more network connection and foreign studying or working experience.

In column 4, we add firm-level factors along with six proxies of founder's characteristics. The effects of founder's characteristics (in terms of the significance and the sign of the coefficient) are essentially unchanged.

We include all the independent variables in columns 5. The effects of founder's characteristics still remain. Market-supporting institutions have positive and significant effects on IPO speed, indicating that a more developed slows down the pace to IPO. Moreover, the most important finding is that, compared to results in columns 2, market-supporting institutions increase its significance and the level of the coefficient. This suggests that market-supporting institutions have a complementary effect with founder's characteristics. Noticeable, after controlling for the effect of market-supporting institutions (columns 2 and 5), we can observe that the Pseudo R-squares increase compared to the specifications without controlling them (columns 1 and 3). Therefore, this confirms the importance of formal institutions.

4.1 Robustness Check

In order to check the consistency of the empirical results, we employ ordered logit and OLS using the same dataset and model specifications. Table 3 reports the results using ordered logit estimation which are essentially unchanged, in terms of the significance and the sign of the founder characteristics and institution variables. Founder's age and political connection have positive effects on IPO speed while founder's experience and foreign experience exert a negative influence. There is a similar pattern of market-supporting institutions – it is positive but insignificant without controlling for the effect of founder's characteristics and becomes significance after including the variables of founder's characteristics. Next, we report results using Tobit estimation in Table 4. Founder characteristics and institution exert a robust effect since their significance and signs are stable across the table. Table 5 reports the estimated results using OLS. The results are still broadly the same, although the significance of some variables (e.g. founder's experience and market-supporting institutions) reduces since OLS is less accurate when the dependent variable is ordinal.

[Insert Table 3 here]

[Insert Table 4 here]

[Insert Table 5 here]

5 Discussion and Conclusion

The aim of this paper is to provide an empirically grounded assessment of the state-of-the-art in entrepreneurship studies in emerging economies by exploring the impacts of the founder's characteristics and external institutional environment on a firm's time to IPO. Previous studies have examined the impact of executives' demographic factors

and external factors (e.g. venture capital involvement and firm's network) on firm's time to IPO. This paper extends this research line and highlights the important role of the founder in determining the time to IPO. Compared to large and mature firms where the complex organisational structure may constrain top managers' ability to initiate change (Daily and Dalton, 1992), the founder of small entrepreneurial firms is responsible for strategic decision-making. In addition to the founder's importance, we have also examined the role of the institutional environment on the firm's time to IPO.

This paper has two important findings. First, we adopted the upper echelon theory and investigate which characteristics of a founder would impact on a firm's time to IPO. Time to IPO is important to potential investors because it is a good reflection of an entrepreneurial firm's performance prior IPO and its potential for further growth (Chang, 2004; Shepherd and Zacharakis, 2001; Yang et al., 2011). As such, it is meaningful for us to explore the determinant factors of a firm's time to IPO. Previous attempts to analyse the determinant of time to IPO have typically been based on top executive's characteristics in a very different context. Though making important contributions, existing studies over-emphasis the role of top executives, but overlook the most important actor for an entrepreneurial firm, the founder. In this paper, we make an important contribution by explicitly linking the time to IPO with the firm's founder.

Our results indicate that elder founders with strong political connections are less likely to accelerate the IPO process while founders with international experience and rich previous working experience are more likely to put the IPO in the fast track. Founder-CEO status and education level have insignificant impacts on IPO speed in our sample. Starting with the beneficial role, richer prior experience offers the founder with knowledge and skills to accelerate and smooth the important transition from a private company to a public one. Prior working experience assists the founder with

board knowledge related to the industrial competition and hence enables the founder to address the great uncertainty surrounding an IPO. Furthermore, the founder's international experience was found to be an accelerator for the firm's IPO.

Compared to the founder's experience, the political connection was found a positive relationship with the time to IPO. In other words, the founder's political ties slow down a firm's pace of going public. The result is inconsistent with existing studies on firms' IPO speed (Chang, 2004; Yang et al., 2011). For example, Yang et al. (2011) suggest a well-networked CEO can access the necessary resources to take a company public faster than a CEO with a limited. Their results were however based on high-technology firms in the U.S. In emerging economies (such as China), political ties can help the focal firm to access to resources such as capital, human resources, and business partners. A well-connected founder could gain access to valuable resources via the informal political channels, which makes IPO less urgent. Our results reflect the strategic importance of social ties in emerging economies.

Secondly, this paper articulates the importance of formal and informal institutions in the IPO process. Formal institutions have been proved to exhibit pressures towards firms' strategic choices and performance. Previous studies exert informal institutions (e.g. social network) play a larger role when formal institutions are weak or even absent (Peng, 2003; Peng and Heath, 1996). This paper leverages this aspect and finds the founder's political connection prolongs the IPO process. This result is practically interesting when we take the effects of formal institutions on the firm's time to IPO into consideration. Our results indicate the complementary effects of the founder's political connection on market-supporting institutions in emerging economies and reflect the primary aim of IPO in emerging economies is to gain access to additional funding and resources. Under circumstances where an entrepreneurial firm can approach resources

via its founder's political connections or through the market transaction, the entrepreneurial firm slows down the IPO speed.

Overall, our findings provide solid theoretical empirical bases for understanding entrepreneurial firm's IPO speed. Building on microfoundation literature and upper echelon theory, this paper emphasises on the role of founder and stress that the founder are the fundamental units of analysis for entrepreneurial firm's activities. By highlighting the founder as the microfoundation, we contribute to the microfoundation approach and illustrate the effects of the founder, the most powerful individual, on an entrepreneurial firm's strategic outcomes. Existing microfoundation research mainly focuses on the chief executive in mature firms (e.g. Kunisch et al., 2019). We extend the line of argument and assert that the founder should be viewed as the microfoundation and starting point to study entrepreneurial firms.

This paper also contributes to institution-based view by exploring the interplay between the microfoundation and macro environment. Institution-based view addresses the macro-level pressure and its consequent pressure and/or motivation towards the firm's strategic reactions. This paper underlines the founder as the microfoundation and bridge the micro-level of the firm with the macro environment by illuminating how would the founder's political ties and market-supporting institution influence an entrepreneurial firm's time to IPO.

Managerial and Practical Implications

Our findings have important managerial and practical implications. First, we indicate the importance of the founder as the microfoundation in determining the development speed before IPO. Our study reveals the essential role of the founder's working experience and international experience on the firm's development. Our findings reopen the debates on the role of the founder in shaping the firm's strategy.

Conventional wisdom advocates the importance of collective constructs (e.g. organisational routine and culture) in driving a firm's outcomes. Leveraging the recent microfoundation literature, this paper offers a clear signal to the investors that the founder does matter.

As we have suggested in our study, market-supporting institutions slow down the IPO speed. This result, together with the role of the founder's political ties, implies the aim of the firm conducting IPO in emerging economies. The founder's political ties can secure valuable resources for the firm, which slows down the IPO speed. Well-established market-supporting institutions facilitate resources' liquidity. Therefore, the shorter time a firm used to conduct IPO, the more likely the firm is lack of political support and other resources. Potential investors who are interested in making investment would need further investigation on the potential of these firms.

Limitation and Future Research

This paper provides promising avenues for future research. First, we examine the influence of the founder on the time to IPO. Subsequent research can further develop this research line and explore the impacts of IPO speeds on post IPO performance. Second, our sample only contains IPO firms on GEM in China. Future research should also include firms listed on the main board of Shanghai and Shenzhen Stock Exchange to gain a more comprehensive understanding of the founder's effects in China. Third, our findings may be applied only to Chinese entrepreneurial founders and firms. Therefore, it would be instructive to discover whether our findings can be generalisable from other emerging economies and even developed economies. Finally, future research should further explore the interaction between the founder (as microfoundation) and the macro environment and test the possible moderating/mediating effects between the individual and the institutions.

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Note

1 We had included as many firms as possible during the process of data collection in May 2016. Shenzhen Growth Enterprise Market is a new second board of China stock

market which has officially started providing listing and trading service since September 2019. Therefore, we ended up with a sample consisted of 511 firms.

[2] We decide to use this empirical method is due to the fact that the dependent variable is measured as an ordinal variable rather than a continuous variable. Therefore, it is less appropriate to apply the traditional approach - OLS estimation. In case of insisting of using OLS when the left-hand-side variable is ordinal, the regression in fact is a so-called linear probability model (LPM). The main drawback of using LPM is that, when independent variables are continuous, the classical assumption of linearity possibly cannot hold [Wooldridge, (2013), p.240]. We use pooled ordered logit estimation (which is similar to pooled ordered probit estimation) as the alternative method for robustness check. Also, we report the results using Tobit and OLS estimations in the robustness section for a comparison purpose.

Table 1 Descriptive statistics and correlation

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11
1. IPO speed	11.0411	4.1549	1										
2. Founder CEO	0.5953	0.4916	-0.0840	1									
3. Age	52.8622	7.1945	0.2127***	-0.3319***	1								
4. Education	1.6569	1.0993	-0.0265	0.0906	-0.1994***	1							
5. Political connection	0.2933	0.4559	0.0945*	-0.0857	0.1280**	0.0077	1						
6. Network experience	6.8856	5.1600	-0.0231	-0.1505***	0.1260**	-0.1003	0.1631***	1					
7. Foreign experience	0.1760	0.3813	-0.1085**	-0.0740	-0.0201	0.1865***	0.0238	0.1194**	1				
8. Venture capital	0.1978	1.2638	0.0761	0.0502	-0.0481	0.1227**	0.0892	-0.0446	-0.0069	1			
9. R&D ratio	0.0615	0.0395	0.0191	0.0865	-0.1100**	0.0461	-0.1130**	0.0053	0.0184	-0.0412	1		
10. Firm size	19.3893	0.6715	0.1551***	-0.1089**	0.1263**	-0.0074	0.1817***	0.2006***	0.1032*	0.0431	-0.1660***	1	
11. Market-supporting institution	3.2411	0.1103	0.1175**	0.0496	0.0065	0.0582	-0.0434	0.0678	0.0575	0.0352	-0.0346	0.0573	1

Note: Observation is 333. *** Statistical significance at 1% level (p value < 0.01); ** Statistical significance at 5% level (p value < 0.05); * Statistical significance at 10% level (p value < 0.1).

Table 2 Founder's characteristics, institutions and IPO speed

	1	2	3	4	5
Founder-CEO			0.1089	0.1117	0.0694
			(0.1436)	(0.1445)	(0.1460)
Age			0.0459***	0.0509***	0.0514***
			(0.0102)	(0.0103)	(0.0103)
Education			-0.0224	-0.0420	-0.0320
			(0.0612)	(0.0630)	(0.0632)
Political connection			0.3572**	0.3245**	0.3125**
			(0.1489)	(0.1529)	(0.1530)
Founder's experience			-0.0304**	-0.0414***	-0.0454***
			(0.0128)	(0.0132)	(0.0134)
Foreign experience			-0.5145***	-0.5832***	-0.5736***
			(0.1757)	(0.1772)	(0.1773)
Market-supporting institutions		2.7143			3.4343**
		(1.6788)			(1.7245)
Venture capital	0.0536	0.0591		0.0625	0.0694
	(0.0462)	(0.0463)		(0.0471)	(0.0472)
R&D ratio	3.6536**	3.6085**		4.5543**	4.5234**
	(1.8243)	(1.8247)		(1.8377)	(1.8381)
Firm size	0.1926*	0.1684		0.2737**	0.2463**
	(0.1052)	(0.1063)		(0.1085)	(0.1094)
Industry dummies	Yes	Yes	Yes	Yes	Yes
Province dummies	Yes	Yes	Yes	Yes	Yes
N	333	333	333	333	333
Pseudo R2	0.0715	0.0729	0.0934	0.0995	0.1016

Note: The dependent variable is IPO speed. Estimation is by ordered probit. The standard errors are shown below coefficients (in parentheses). *** Statistical significance at 1% level (p value < 0.01); ** Statistical significance at 5% level (p value < 0.05); * Statistical significance at 10% level (p value < 0.1).

Table 3 Robustness check: Ordered Logit

	1	2	3	4	5
Founder CEO			0.2441	0.2493	0.2488
			(0.2380)	(0.2407)	(0.2411)
Age			0.0609***	0.0666***	0.0687***
			(0.0171)	(0.0171)	(0.0172)
Education			0.0333	0.0099	-0.0127
			(0.1062)	(0.1111)	(0.1116)
Political connection			0.4907**	0.4840*	0.5098**
			(0.2497)	(0.2562)	(0.2559)
Founder's experience			-0.0507**	-0.0709***	-0.0768***
			(0.0225)	(0.0231)	(0.0231)
Foreign experience			-0.8494***	-1.0683***	-1.1025***
			(0.2997)	(0.3082)	(0.3114)
Market-supporting institutions		1.7589			2.7049**
		(1.1181)			(1.1385)
Venture capital	0.0911	0.0901		0.0738	0.0752
	(0.0673)	(0.0673)		(0.0682)	(0.0683)
R&D ratio	5.1049*	5.4929*		7.1642**	7.8545***
	(2.9812)	(2.9857)		(2.8864)	(2.8883)
Firm size	0.3896**	0.3957**		0.5911***	0.6163***
	(0.1775)	(0.1763)		(0.1818)	(0.1840)
Industry dummies	Yes	Yes	Yes	Yes	Yes
Province dummies	Yes	Yes	Yes	Yes	Yes
N	333	333	333	333	333
Pseudo R2	0.0576	0.0589	0.0723	0.0807	0.0838

Note: The dependent variable is IPO speed. Estimation is by ordered logit. The standard errors are shown below coefficients (in parentheses). *** Statistical significance at 1% level (p value < 0.01); ** Statistical significance at 5% level (p value < 0.05); * Statistical significance at 10% level (p value < 0.1).

Table 4 Robustness check: Tobit

	1	2	3	4	5
Founder CEO			-0.5435	0.0423	0.2318
			(0.3893)	(0.4223)	(0.4252)
Age			0.0359***	0.1354***	0.1488***
			(0.0108)	(0.0293)	(0.0296)
Education			-0.2286	-0.0862	-0.0675
			(0.1816)	(0.1882)	(0.1857)
Political connection			1.1109**	1.0828**	1.0016**
			(0.4524)	(0.4475)	(0.4424)
Founder's experience			-0.1128***	-0.1005**	-0.1031***
			(0.0392)	(0.0392)	(0.0387)
Foreign experience			-1.6334***	-1.6304***	-1.6943***
			(0.5455)	(0.5325)	(0.5259)
Market-supporting institutions		1.9730			3.9564**
		(1.9878)			(1.8396)
Venture capital	0.2086	0.1974		0.2371	0.2138
	(0.1541)	(0.1542)		(0.1446)	(0.1430)
R&D ratio	9.9921*	10.9175*		10.8713**	12.8010**
	(5.9146)	(5.9729)		(5.4696)	(5.4446)
Firm size	-0.0085	0.3188		0.3354***	0.2705
	(0.0319)	(0.3288)		(0.0908)	(0.2978)
Constant	3.3697***	3.3639***	3.2034***	3.1090***	3.0661***
	(0.1265)	(0.1262)	(0.1132)	(0.1137)	(0.1105)
Industry dummies	Yes	Yes	Yes	Yes	Yes
Province dummies	Yes	Yes	Yes	Yes	Yes
N	333	333	333	333	333
Pseudo R2	0.0628	0.0633	0.0706	0.0846	0.0855

Note: The dependent variable is IPO speed. Estimation is by Tobit. The standard errors are shown below coefficients (in parentheses). *** Statistical significance at 1% level (p value < 0.01); ** Statistical significance at 5% level (p value < 0.05); * Statistical significance at 10% level (p value < 0.1).

Table 5 Robustness check: OLS

	1	2	3	4	5
Founder CEO			0.3747	0.4065	0.3187
			(0.5180)	(0.5103)	(0.5114)
Age			0.1356***	0.1418***	0.1399***
			(0.0364)	(0.0361)	(0.0360)
Education			0.0363	-0.0191	-0.0443
			(0.2272)	(0.2287)	(0.2285)
Political connection			1.0834**	0.9978*	1.0321*
			(0.5367)	(0.5429)	(0.5415)
Founder's experience			-0.0785*	-0.1028**	-0.1117**
			(0.0472)	(0.0476)	(0.0478)
Foreign experience			-1.6598**	-1.8523***	-1.9158***
			(0.6500)	(0.6413)	(0.6404)
Market-supporting institutions		2.6200			3.7409*
		(2.3590)			(2.0723)
Venture capital	0.1808	0.1796		0.1728	0.1728
	(0.1811)	(0.1810)		(0.1750)	(0.1744)
R&D ratio	8.8958	9.5750		11.4394*	12.5863*
	(6.7553)	(6.7800)		(6.4558)	(6.4721)
Firm size	0.7030*	0.6924*		0.8651**	0.8616**
	(0.3887)	(0.3886)		(0.3808)	(0.3796)
Constant	-5.1453	-13.7342	2.4398	-16.2499*	-28.5036**
	(8.9939)	(11.8585)	(4.5696)	(8.9869)	(11.6461)
Industry dummies	Yes	Yes	Yes	Yes	Yes
Province dummies	Yes	Yes	Yes	Yes	Yes
N	333	333	333	333	333
Pseudo R2	0.2465	0.2500	0.3118	0.3342	0.3412

Note: The dependent variable is IPO speed. Estimation is by OLS. The standard errors are shown below coefficients (in parentheses). *** Statistical significance at 1% level (p value < 0.01); ** Statistical significance at 5% level (p value < 0.05); * Statistical significance at 10% level (p value < 0.1).

Figure 1 Research Model